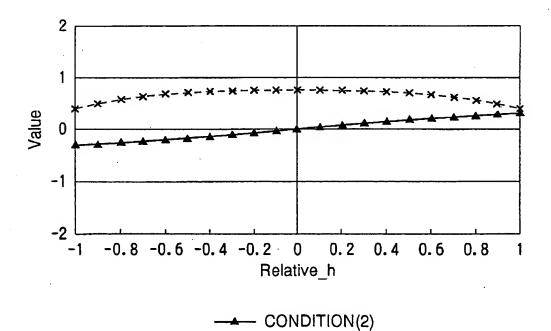


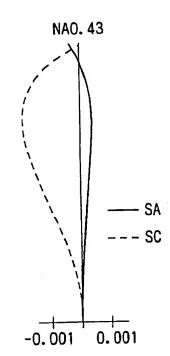
FIG. 1



----- CONDITION(3)

FIG. 2

FIG. 3



SPHERICAL ABERRATION SINE CONDITION

FIG. 4

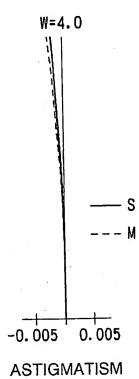


FIG.5A

Y = 0.00

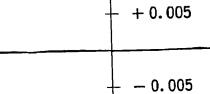


FIG.5B

Y= 0.02 (W= 1.30) + 0.005

- 0.005

FIG.5C

Y= 0.05 (W= 2.70) + 0.005

- 0.005

FIG.5D

Y= 0.07 (W= 4.00) + 0.005 --0.005

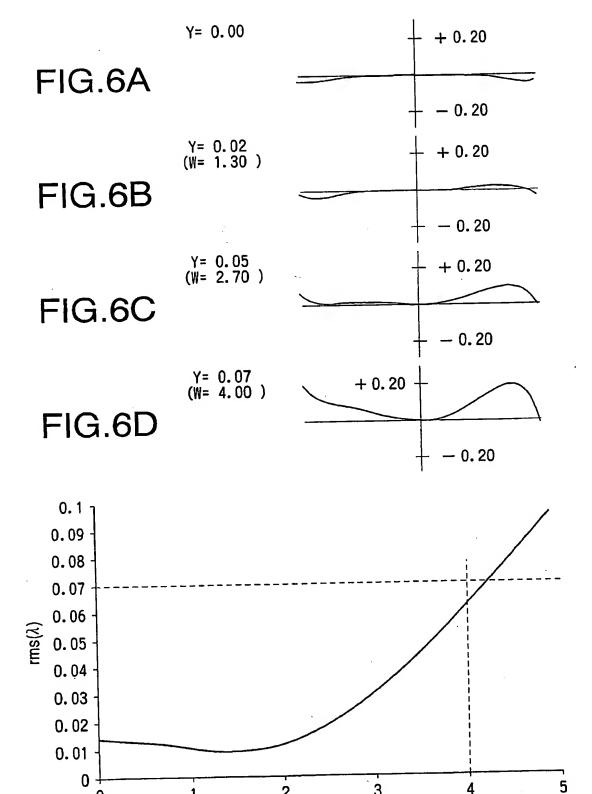
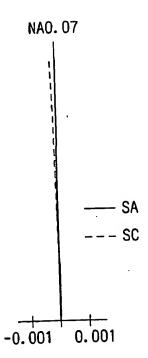


FIG. 7

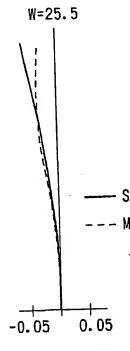
FIELD ANGLE (deg)

FIG. 8



SPHERICAL ABERRATION SINE CONDITION

FIG. 9



**ASTIGMATISM** 

FIG.10A

Y = 0.00

Y = 0.15 (W = 8.50)

Y = 0.29 (W=17.00)

Y= 0.43 (W=25.50)

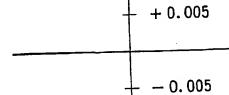


FIG.10B

+ + 0.005

- 0.005

FIG.10C

+ 0.005

- 0.005

FIG.10D

+ 0.005

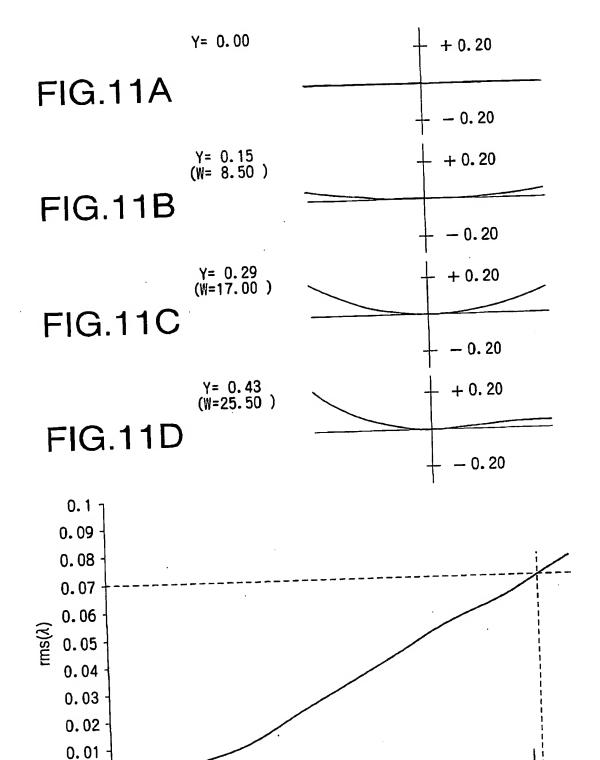
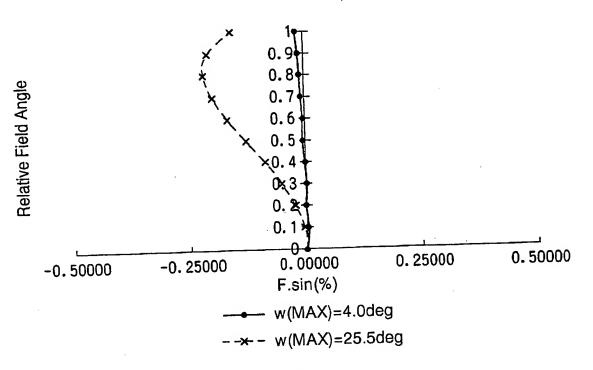


FIG.12

FIELD ANGLE (deg)

25.5



**FIG.13** 

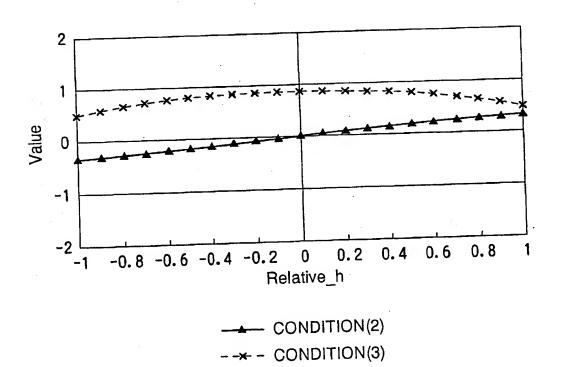
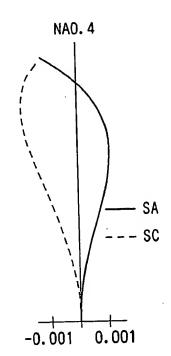


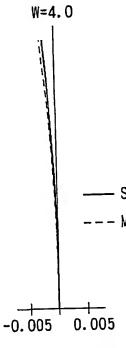
FIG.14

**FIG.15** 



SPHERICAL ABERRATION SINE CONDITION

FIG.16



**ASTIGMATISM** 

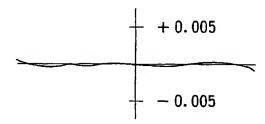


Y = 0.02 (W = 1.30 )

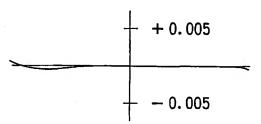
Y = 0.05 (W = 2.70 )

Y= 0.07 (W= 4.00 )

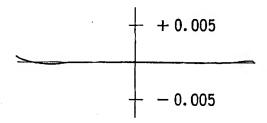
## FIG.17A



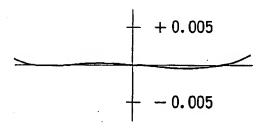
## FIG.17B

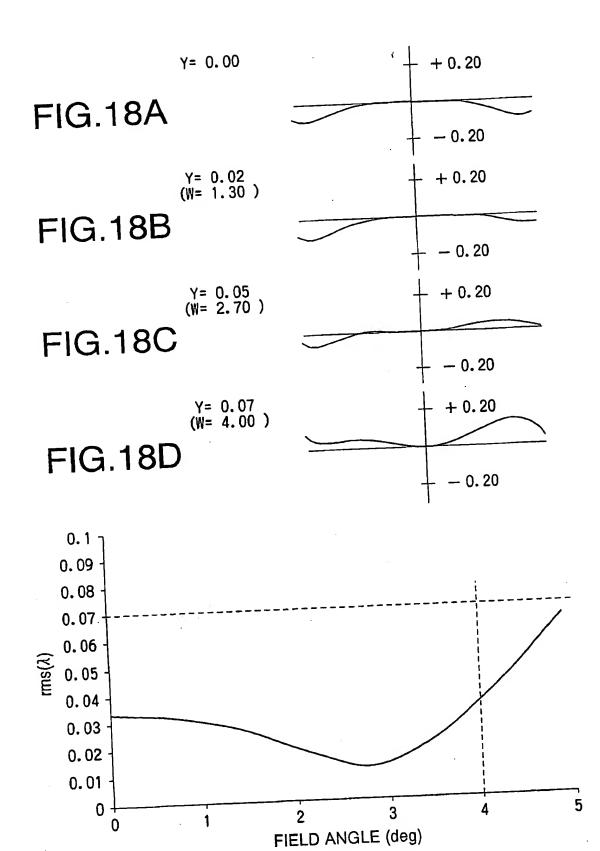


## FIG.17C



## FIG.17D

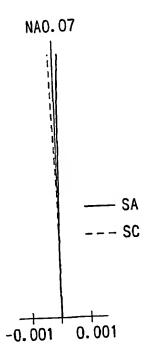




**FIG.19** 

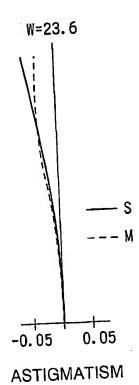
# 6// 01

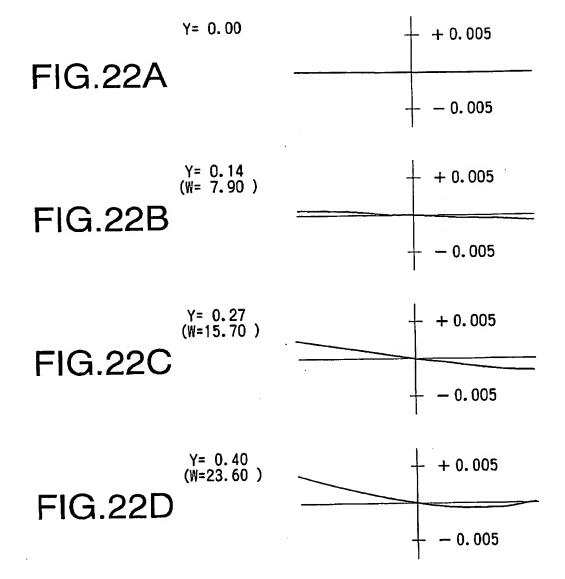
FIG.20



SPHERICAL ABERRATION SINE CONDITION

FIG.21





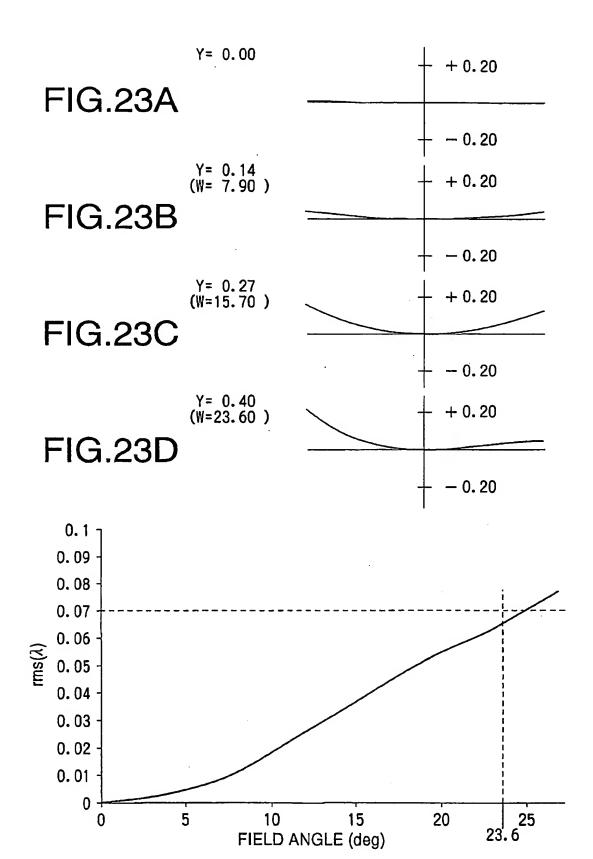
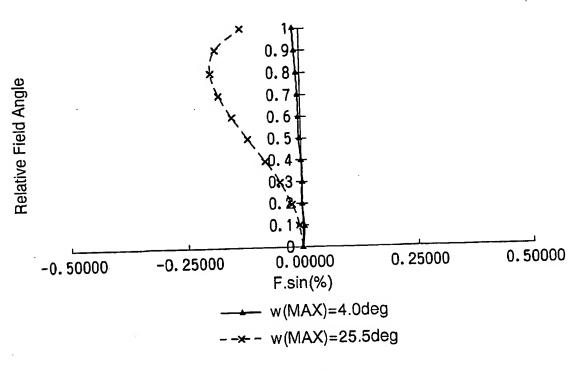


FIG.24

FIELD ANGLE (deg)



**FIG.25** 

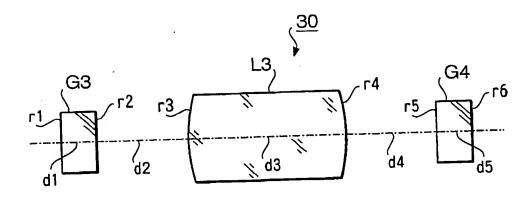
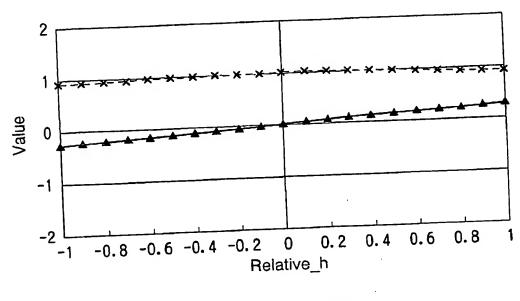


FIG.26

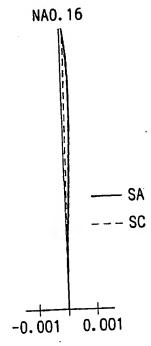


CONDITION(2)

---- CONDITION(3)

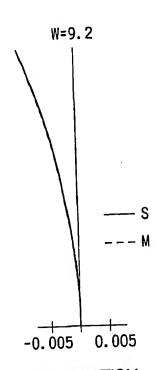
FIG.27





SPHERICAL ABERRATION SINE CONDITION

FIG.29



**ASTIGMATISM** 

Y = 0.00

FIG.30A

Y = 0.05 (W= 3.10 )

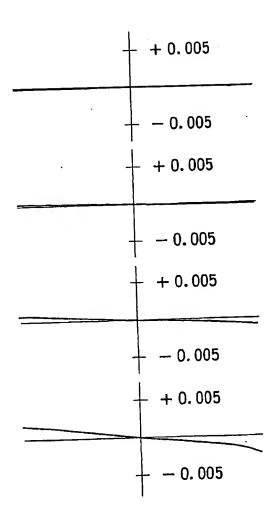
FIG.30B

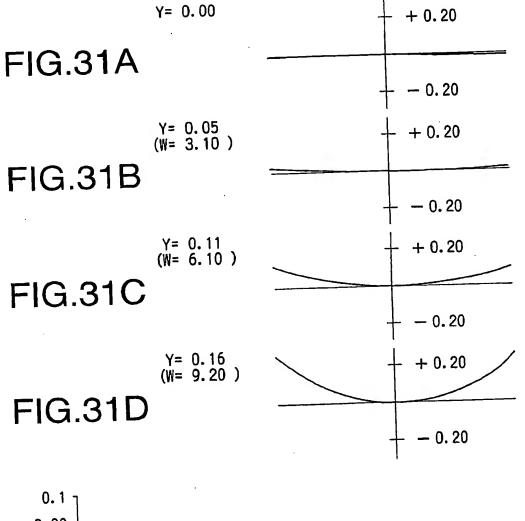
Y = 0.11 (W = 6.10)

FIG.30C

Y= 0.16 (W= 9.20 )

FIG.30D





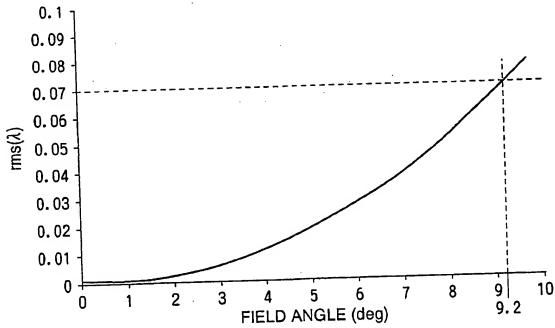
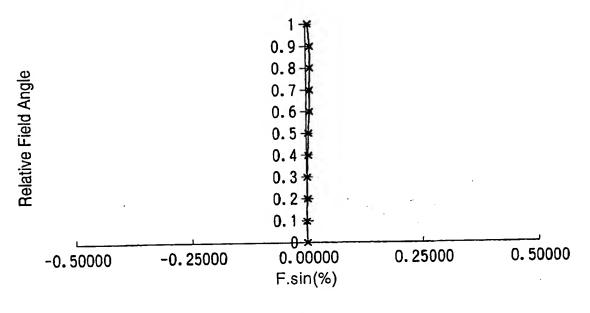
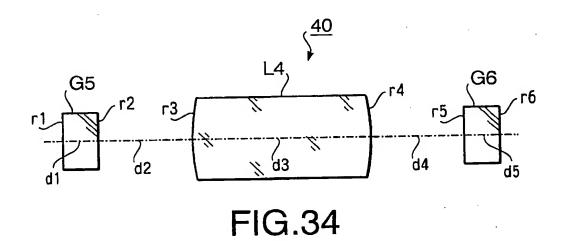


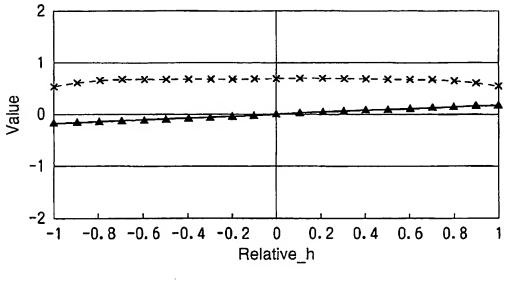
FIG.32



——— w(MAX)=9.2deg

FIG.33



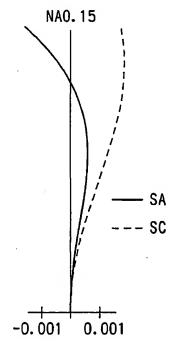


CONDITION(2)

--x-- CONDITION(3)

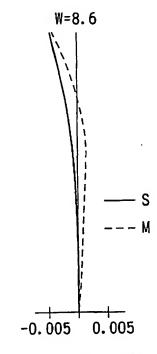
FIG.35





SPHERICAL ABERRATION SINE CONDITION

**FIG.37** 



**ASTIGMATISM** 

Y = 0.00

FIG.38A

Y = 0.05 (W = 2.90 )

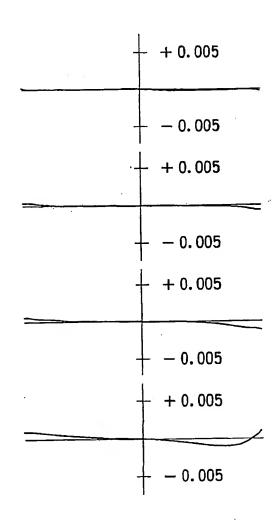
FIG.38B

Y = 0.10 (W = 5.80 )

FIG.38C

Y= 0.15 (W= 8.60)

FIG.38D



0.01

0 -

0

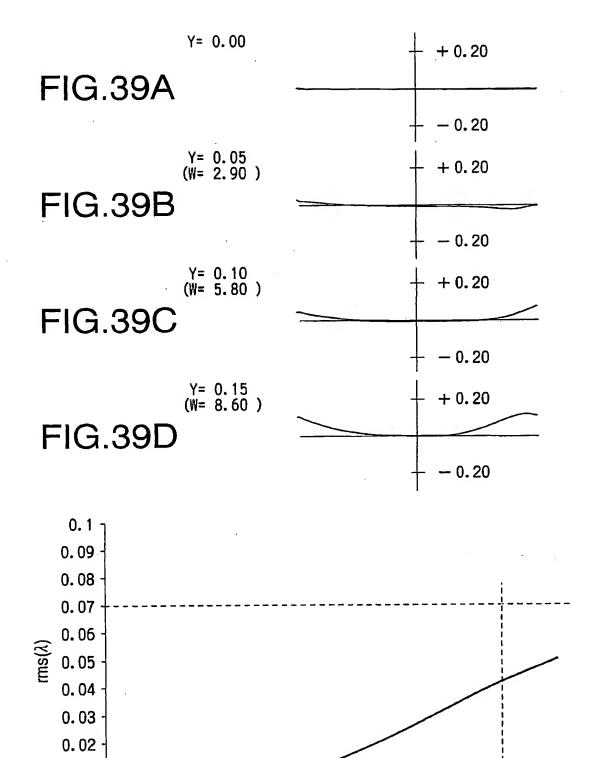


FIG.40

4 5 6 FIELD ANGLE (deg)

3

2

8.6

10

8

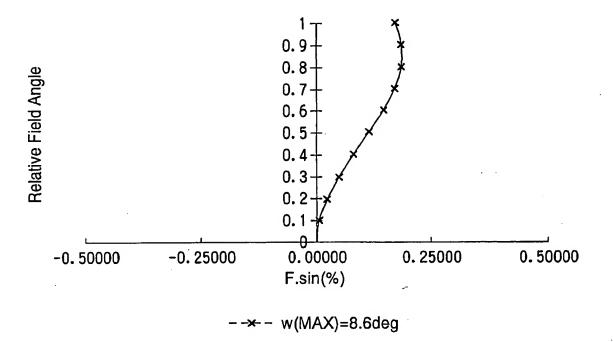


FIG.41

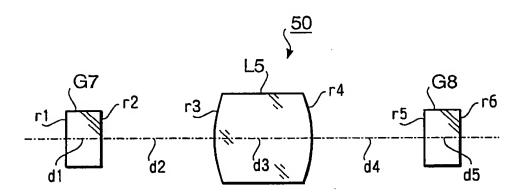
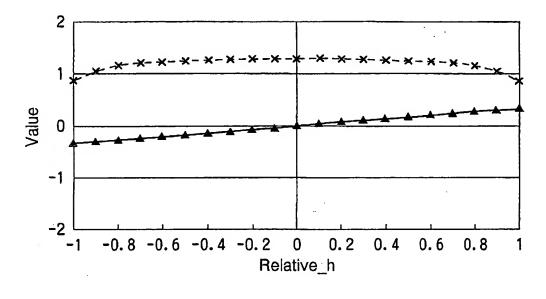


FIG.42

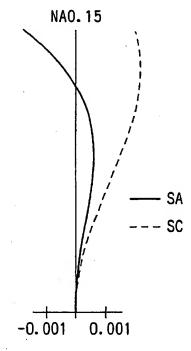


─▲ CONDITION(2)

--x-- CONDITION(3)

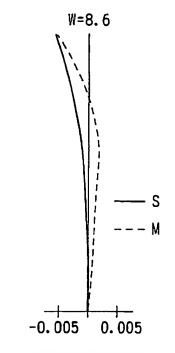
FIG.43

FIG.44



SPHERICAL ABERRATION SINE CONDITION

FIG.45



**ASTIGMATISM** 

FIG.46A

Y= 0.05 (W= 2.90 )

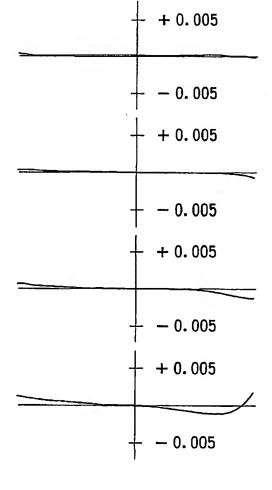
FIG.46B

Y= 0.10 (W= 5.80 )

FIG.46C

Y= 0.15 (W= 8.60)

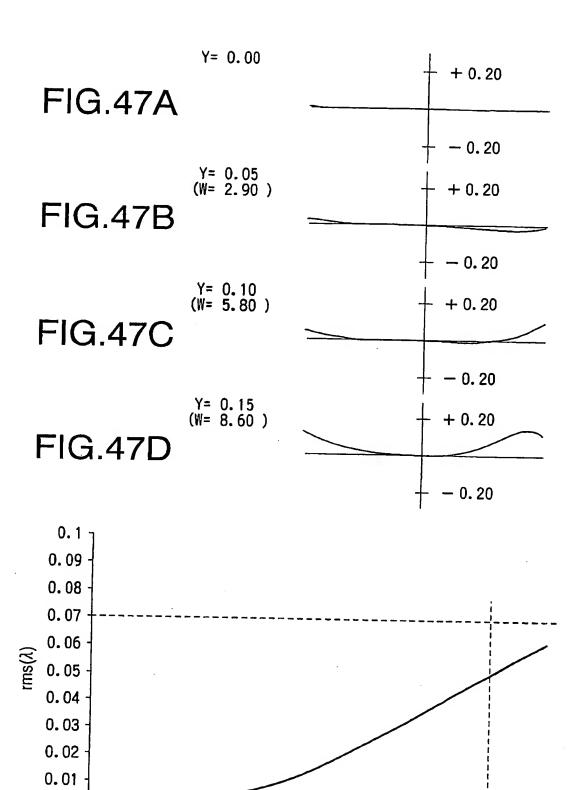
FIG.46D



0 +

2

3



**FIG.48** 

FIELD ANGLE (deg)

6

7

8.6

10

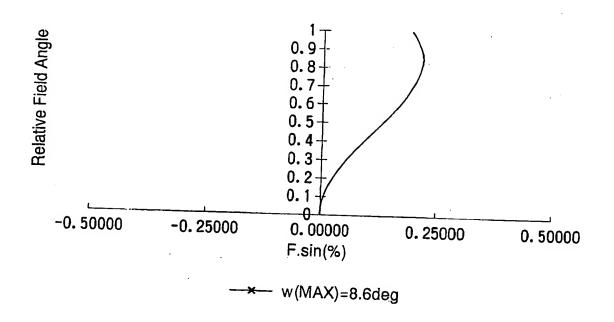


FIG.49